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39. (Amended) A method as claimed in claim 38, wherein the charged particle beam scans substantially less than the whole area of the predetermined region.

40. (Amended) A method as claimed in claim 35, wherein step b) comprises obtaining a voltage contrast image of the [region] portion of the [die] region.

41. (Amended) A method as claimed in claim 40, wherein step c) comprises comparing the voltage contrast image to an image of corresponding structures at the [predetermined] reference voltages.

44. (Amended) Apparatus for detecting electrical defects in a die on a semiconductor wafer, comprising:

a) means for applying charge to a predetermined region of the wafer such that electrically isolated structures in the die are raised to a voltage relative to electrically grounded structures;

b) a probe, having [a] significantly higher resolution than the means for applying charge, for obtaining voltage contrast data for a portion of the predetermined region [of the die] containing such structures; and

c) means for determining reference voltages for such structures, should they be so charged and should they be non-defective; and

[c)] d) means for analyzing the voltage contrast data to detect structures at [a] voltages different [to predetermined] from the reference voltages for such structures, thus determining which structures are defective.

45. (Amended) Apparatus as claimed in claim 44, wherein the probe comprises an electron beam probe arrangement which scans an electron beam across [the region of] the die.

46. (Amended) Apparatus as claimed in claim [44] 45, wherein the electron beam probe also includes a detector for secondary electrons emitted from the die as the electron beam is scanned across the [region] die.

47. (Amended) Apparatus as claimed in claim 45, wherein the electron beam probe scans the beam across substantially less than the whole area of the predetermined region.

48. (Amended) Apparatus as claimed in claim 44, wherein the means for analyzing voltage contrast data compares the voltage contrast data [obtained] taken from the portion of the predetermined region with voltage contrast data obtained from a corresponding region of another device.

49. (Amended) Apparatus for detecting electrical defects in a device on a semiconductor wafer, having some structures at ground voltage and other structures at a floating voltage relative to ground comprising:

a) a charged particle beam probe for scanning a charged particle beam across a predetermined region of [the] a surface of the device in a series of spaced scan lines so as to intersect structures in the device;

b) a secondary particle detector for obtaining voltage contrast data for the scan lines; and

c) means for analyzing the voltage contrast data to determine the presence of a structure at a different voltage [to a predetermined voltage] from a reference voltage for that structure should the structure be so charged and non-defective, thus identifying defective structures.